

CLAIMS

What is claimed is:

1. A multi-services access platform, comprising:

5 a chassis that includes:

a predetermined number of card slots, wherein each of the card slots includes input/output ports; and

10 a backplane that includes a metallic test access bus, wherein the metallic test access bus is operable to selectively couple to an input/output port of at least one of the card slots to provide at least one metallic test path.

15 2. The multi-services access platform of claim 1 wherein a first portion of the metallic test access bus is operable to selectively couple to an input/output port of a first card slot to provide a first metallic test path and a second portion of the metallic test access bus is operable to couple to an input/output port of a second card slot to provide a second metallic test path.

20 3. The multi-services access platform of claim 1, wherein selective coupling is accomplished using relays.

4. The multi-services access platform of claim 1, wherein the chassis further comprises a connector operably coupled to the backplane, wherein the connector provides
25 access to the metallic test access bus from external to the chassis.

5. The multi-services access platform of claim 4 further comprises a test controller operably coupled to the connector, wherein the test controller is operable to provide stimulus over the at least one metallic test path.

6. The multi-services access platform of claim 1, wherein the metallic test access bus includes a control portion and a stimulus portion, wherein the control portion is operable to select to which of the card slots the metallic test access bus is coupled,
5 wherein the stimulus portion is operable to convey stimulus to input/output ports to which the metallic test access bus is coupled.
7. The multi-services access platform of claim 6, wherein the control portion of the metallic test access bus includes a serial data communication link.
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8. The multi-services access platform of claim 6, wherein the stimulus portion of the metallic test access bus includes at least six conductor pairs.
9. The multi-services access platform of claim 6, wherein the stimulus portion of the
15 metallic test access bus includes at least eight conductor pairs.
10. The multi-services access platform of claim 6, wherein the stimulus conveyed includes at least one of a Safety Extra Low Voltage (SELV) rated stimulus and a Telecom Network Voltage (TNV) rated stimulus.
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11. The multi-services platform of claim 10, wherein in a first configuration the metallic test access bus is operable to couple to an input/output port of a first card slot and an input/output port of a second card slot, wherein the metallic test access bus is operable to convey the SELV rated stimulus to the input/output port of the first card slot
25 and to convey the TNV rated stimulus to the input/output port of the second card slot.
12. The multi-services access platform of claim 1 further comprises a first line card operably coupled to a first card slot of the predetermined number of card slots, wherein the metallic test access bus is operable to selectively couple to at least one of: an
30 input/output port of the first card slot and an input/output port of the first line card.

13. The multi-services access platform of claim 1 further comprises a test controller within the chassis and operably coupled to the metallic test access bus.

14. The multi-services access platform of claim 1, wherein the predetermined number
5 of card slots is at least 12 card slots.

15. The multi-services access platform of claim 1, wherein dimensions of the chassis are each within three inches of standard dimensions set forth in "Network Equipment-Building System (NEBS) Requirements: Physical Protection" GR-63-CORE, Issue 1,
10 October 1995, as promulgated by TELCORDIA TECHNOLOGIES, INC. (formerly BELLCORE).

16. The multi-services access platform of claim 1, wherein dimensions of the chassis are not greater than approximately 18 inches wide, 22 inches tall, and 12 inches deep.

15 17. The multi-services access platform of claim 1 wherein each of the card slots includes at least 64 input/output ports.

18. A method for performing metallic test access testing, comprising:

issuing control signals on a metallic test access bus included in a backplane of a chassis that includes a predetermined number of card slots, wherein each of the
5 predetermined number of card slots has input/output ports, wherein the control signals operate to selectively couple the metallic test access bus to an input/output port of a first card slot to provide a first metallic test path;

applying stimulus on the first metallic test path to produce a first response; and

measuring the first response.

19. The method of claim 18, wherein issuing the control signals configures relays such that the metallic test access bus is selectively coupled to the input/output port of the
15 first card slot.

20. The method of claim 18, wherein the control signals operate to selectively couple the metallic test access bus to the input/output port of the first card slot to provide the first metallic test path and further operate to selectively couple the metallic test access
20 bus to an input/output port of a second card slot to provide a second metallic test path, wherein applying stimulus includes applying first stimulus on the first metallic test path to produce the first response and applying second stimulus on the second metallic test path to produce a second response,

wherein measuring includes measuring the first and second responses.

21. The method of claim 20, wherein the first stimulus is a Safety Extra Low Voltage (SELV) rated stimulus and the second stimulus is a Telecom Network Voltage (TNV) rated stimulus.

22. The method of claim 18, wherein the stimulus is one of a Safety Extra Low Voltage (SELV) stimulus and a Telecom Network Voltage (TNV) stimulus.

23. The method of claim 18, wherein the control signals are issued over a control portion of the metallic test access bus and the stimulus is applied over a stimulus portion of the metallic test access bus.

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